

REMARKS

Claims 1-21 are pending in the application and claims 1, 10, 11, and 16 have been amended. No new matter has been introduced by the amendment.

Drawing Objection

An objection has been raised to the drawing for a failure to show the connecting lines between the latticed metal regions and the electrically conductive regions with different labels. Figures 1-4 of the drawing illustrate exemplary embodiments and the connecting lines shown therein. This objection is overcome in view of the applicant's submission of a corrected drawing in which the connecting lines are labeled as either "V1" or "V2."

The Office Action questions the need for two copies of Figure 1 in the applicant's drawing. The applicant is unaware of the submission of duplicate figures with the application and assumes that the Office Action is referring to Figures 1 and 2 in the drawing. Each of these figures illustrate different embodiments of the invention. As set forth in paragraph 0036 of the applicant's Substitute Specification (submitted herewith and discussed below):

"A further exemplary embodiment is shown in Figure 2. The capacitance structure K corresponds essentially to that shown in Figure 1. One difference is that the third substructure T1c is constructed merely from the latticed region G1c. This admittedly means that the useful capacitance does not have the capacitance components C_1 in the metallization plane M3 or the capacitance components between the via connections V1 and V2 which are at different potentials between the substructure T1b and the substructure T1c. However, omitting the metal plates P1c significantly reduces the parasitic capacitance."

Accordingly, the applicant asserts Figures 1 and 2 do not show copies of the same embodiment.

Specification Amendment and Submission of Substitute Specification

The specification has been amended to reflect the drawing correction described above. A marked up copy of the specification is provided showing the changes made to identify the connecting lines as elements V1 and V2. The changes replace the original element label V with either V1 or V2, as appropriate. The applicant asserts that these changes merely re-designate the identification of subject matter disclosed in the original application and do not add new matter to the specification.

A substitute specification is submitted herewith. The Substitute Specification has been formatted with paragraph numbers and includes all of the specification amendments set forth in the applicant's Preliminary Amendment, filed with the instant application on October 14, 2004. No new matter has been added. The applicant respectfully requests entry of the Substitute Specification.

Claim Objection

An objection has been raised to claim 10 for ambiguity regarding the recitation of capacitance in the latticed metal region. This objection is overcome in view of amendment of claim 10, in which the source of capacitance in the latticed metal region is identified.

Rejection Under 35 U.S.C. § 102(b)

Claims 1-21 have been rejected over Ng. This rejection is overcome in view of the amendment of claims 1, 11, and 16, together with the following remarks.

The Office Action states that Ng discloses crossing metal leads (main portion 68 crossing edge portion 69) and electrically conductive regions (75) arranged in openings in a cohesive latticed metal region. (Office Action, pg. 3). Claims 1, 11, and 16 recite that the electrically conductive regions are electrically isolated from the crossing metal leads. Further, the metal leads have a width less than or equal to the distance between the edge regions of the openings and the electrically conductive regions. The claimed lattice includes structurally independent leads configured in a regular pattern, where the crossing points reside at the intersection of these leads. Thus,

the claimed capacitor structure includes lattices having electrically isolated regions within openings defined by the lattice. The structure disclosed by Ng differs from the applicant's claimed latticed metal region including crossing metal leads.

As described in paragraph [0006] of the applicant's Substitute Specification,

“...it is desirable or necessary to produce capacitance structures in which at least one electrode structure of the capacitance has a relatively low, ideally no, parasitic capacitance relative to the substrate in comparison with the second electrode structure.”

The applicant's semiconductor component advantageously provides a capacitor having varying parasitic capacitance relative to the substrate. This improves the ratio of useful to parasitic capacitance while providing a capacitance structure having a relatively small parasitic capacitance. The electrically conductive regions comprise metal plates or electrically conductive node points. In various embodiments, each node point forms one end of a via connection or else a connection connecting two respective via connections. The via connections may be in the form of electrical connections that electrically connect substructures of the capacitance structure or electrically connect a substructure of the capacitance structure and a region of the semiconductor component that is not part of the capacitance structure.

The applicant asserts that the claimed capacitor structure is not suggested or disclosed by Ng.

Claims 2-10 are allowable in view of their direct or indirect dependence from claim 1, and because these claims describe further detail of the claimed semiconductor component.

Claim 11 further distinguishes from Ng by reciting a semiconductor component including a second metal lattice in the insulating layer, where the second metal lattice includes intersecting metal leads in a second common plane. First and second electrical connections run between the first and second lattices such that the first and second electrical connections are at different electrical potential.

Claims 12-15 are allowable in view of their direct dependence from claim 11, and because these claims describe further detail of the claimed semiconductor component.

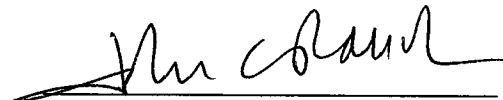
Claim 16 further distinguishes from Ng by reciting a third metal structure in the insulating layer in a third common plane the third metal structure comprising one of a third metal lattice or a metal plate. First and second electrical connections run between the first and second lattices and the third metal structure, such that the first and second electrical connections are at different electrical potential.

Claims 17-21 are allowable in view of their direct or indirect dependence from claim 16, and because these claims describe further detail of the claimed semiconductor component.

The additionally cited references have been carefully considered and found not to be relevant to the applicant's claims.

The Applicant has made a novel and non-obvious contribution to the art of semiconductor component design. The claims as issue distinguish over the cited references and are in condition for allowance. Accordingly, such allowance is now earnestly requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John G. Rauch", written over a horizontal line.

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